

Periscope.

DEUTSCHE ZEITSCHRIFT FÜR NERVENHEILKUNDE

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1. *Stab Wound of Spinal Cord.*—Schittenhelm reports the case of a man who was stabbed in the back between the fifth and sixth cervical vertebræ, with a broad-bladed knife. Immediately after the injury, however, the patient had complete paralysis of the right arm and leg, and difficulty in micturition and defecation. Several months later there was slight motor paralysis on the right side, and some sensory disturbances on the left, particularly loss of pain and temperature sense. A most careful description of the sensory phenomena is given and Schittenhelm discusses the exact localization of the injury. An interesting symptom was the condition of the localization sense. This was found to be completely lost in regions where motility, deeper sensation, and touch were intact, and when analgesia and thermalgesia were absent. It was variously disturbed in other regions. He believes the trouble was due to injury of the posterior columns and the cerebellar and motor lateral columns of the right half of the spinal cord.

2. *Brown-Séquard Unilateral Paralysis.*—Fürnrohr also reports a case of stab wound of the spinal cord causing Brown-Séquard's paralysis. Immediately after the injury the right leg was paralyzed, and there was a peculiar feeling in the right side as far as the nipple. Nine weeks later slight movement could be performed with the right leg. There was thermæsthesia in the left leg, the tendon reflexes were increased on the right side and slightly increased on the left side, and there was also ankle clonus on the right side. The tibialis and toe phenomena of Strümpell were both present in the right leg. A careful examination of the patient showed diminution of the pressure sense and

position sense on the same side as the motor paralysis—that is the right—and on the other side paralysis of the pain and temperature senses. There was also some peculiar subjective paresthesia on the right side.

3. *Hemisection of the Cord and Inhibition.*—Kron has performed a number of experiments upon dogs, making a hemisection of the spinal cord in the upper cervical region, then testing various reflexes in these animals in order to determine what effect this lesion had. The essential conclusions are as follows. After section of the spinal cord there is inhibition of the reflexes which is much more transient than is generally supposed. Therefore there does not seem to be any reason to suspect the existence of inhibitory fibers. After hemisection of the spinal cord respiration ceases on the corresponding side, but this is restored as soon as the phrenic nerve is cut upon the opposite side. The reflexes recur at varying intervals that depend largely upon the level and upon the severity of the lesion. There is no essential difference between the phenomena in animals and human beings; the differences are only slight.

4. *Brain Tumors.*—Bielschowsky reports four cases of brain tumor. The first occurred in a girl of eighteen years, who had nausea and headache, the latter becoming so severe that she was brought to the hospital, where bilateral choked disc was discovered. Later she had weakness in the legs, then staggering gait, loss of vision and some impairment in the heart. There was then loss of power in the right arm. She was re-admitted to the hospital and divergent strabismus was noted. There was also a distinct Romberg symptom and gradually increasing somnolence, then a series of convulsions, the patient finally dying. A tumor was found involving the corpora quadrigemina and apparently proceeding from the choroid plexus. There is a careful description of the histological changes, including the appearance of the tumor, which was apparently epithelial in structure. The case was characteristic because paralysis of the muscles of the eye and ataxia were both present. The second case was a woman of forty-two years who had had symptoms of cerebral trouble for three years. There was headache, tinnitus, and attacks which consisted of tremor with numbness of both arms. There was impairment of vision and finally complete loss of sight. When admitted to the hospital she was found to be entirely deaf in the right ear; hearing was normal in the left ear, and taste and smell were not disturbed. There was papillitis in both eyes, weakness in both arms, and stumbling gait. She developed slight paralysis in the lower half of the right side of the face, which finally became complete, with some reactions of degeneration in the muscles. The patient finally died as a result of a bed sore. At the autopsy a tumor was found at the base of the cerebellum pressing upon the right side of the pons and destroying the right acoustic and facial nerves. This tumor appeared to be a fibroma and to arise from the pia. It is interesting that the hemiplegia was not alternating, it was homolateral. In a third case, a man twenty-seven years of age, the patient had noticed loss of power for half a year. There was some headache, vomiting, bilateral choked disc, staggering gait, and three days after admission, in the course of a severe attack of headache with frequent vomiting, the patient died. A glioma that had undergone cystic degeneration was found occupying the floor of the fourth ventricle. At the autopsy this was supposed to be cysticercus. The fourth case, a woman of twenty-four years, had suffered from vertigo for a number of months, later the gait was uncertain and staggering, and for about four weeks before admission she had had frequent vomiting. When admitted bilateral choked disc was present, there was tenderness over the left occipital lobe, and staggering gait, but no disturbance of sensation. The patient died suddenly, and at the autopsy a tumor was found in the right frontal lobe, cystic in character, which proved to be an

angioma. The interesting symptom in this case was the long persisting vertigo.

5. *Pathology of Nervous Syphilis*.—Erb, after discussing the manifold lesions and types of disease produced by syphilis, and reaching the conclusion in common with other pathologists, that it is impossible to state positively in many instances whether or not a lesion is syphilitic, has undertaken to collect a number of presumably syphilitic cases with degenerative lesions from the literature, and to classify them according to their different types. The first type includes cases of gummas, meningitis, myelitis, arteritis, with direct or focal degeneration of known specific character, in all of which leutic infection was definitely known or probable. The second class includes typical or primary direct degenerations not apparently specific associated with more or less certain specific changes in the meninges, the cord and the blood vessels. This includes a number of non-tabetic scleroses. Finally a third group consists of primary scleroses in certain syphilitic individuals without associated specific lesions. Of these he collects cases representing simple syphilitic disease of the pyramidal tracts, combined systematic disease, systematic disease of the posterior columns, especially tabes, and primary nuclear degenerations, atrophy of the eye nerves, etc. He summarizes his results as follows. That there are in some cases of unquestionable syphilis of the central nervous system changes that resemble primary degenerations, in other cases in which the primary degenerations form the predominant feature of the disease, there are slight syphilitic changes, and finally primary degenerations without syphilitic changes in patients who have certainly been infected with syphilis. He therefore believes that there is no reason for supposing that the absence of syphilitic lesions, as in the third group, is sufficient proof that the process is not syphilitic. In fact there can be no doubt that syphilis is frequently the cause of various forms of degeneration, particularly that involving the tracts. Regarding the nature of syphilis he suggests, as has often been suggested before, that the analogy between syphilitic and tuberculous lesions leads to the supposition that the infecting organisms must be very similar. It is interesting, however, to note how differently the two processes act upon the central nervous system, for there is no evidence that tuberculosis has ever been associated etiologically with either progressive paralysis or tabes. This seems to prove that the localization of the process in these diseases is not due to some weakening factors that act particularly upon the involved tissues.

6. *Tendon Transplantation*.—Vulpinus discusses the transplantation of tendons in the spinal paralyses of children. This is of course useful only in partial paralysis, and may possibly be of use in other forms of paralysis such as that following injury as well as anterior poliomyelitis. He mentions some cases in which this transplantation was performed upon the thigh. In one instance the tendon of the semimembranosus was transplanted into the tendon of the quadriceps, at the same time the semitendinosus was cut in order to relieve the flexor spasm, and finally an osteotomy was performed in order to correct genu valgum. Seven months after the operation the patient was greatly improved and the gait was almost normal. Another case, a boy of six years and a half, had had poliomyelitis in the first year of his life, causing extensive paralysis in both legs followed by extreme deformities. A series of operations was performed to correct these deformities. The tendon of the extensor hallucis was transplanted to the tendon of the tibialis anticus; the tendon of the biceps was transplanted to the tibia, and finally after numerous tenotomies the leg was straightened. In order to promote extension from the knee, the tendons of all possible muscles were transplanted to that of the quadriceps. Seven months later the patient was able to walk without apparatus, and although there was

complete ankylosis of the left knee, there was a fair degree of flexion and extension in the right knee. There was also considerable increase in the power of the muscles and an extraordinary improvement in the condition of the patient.

7. *Hereditary and Family Spastic Paralysis*.—Kühn reports the following interesting instance of hereditary and family spastic spinal paralysis. Nothing could be learned concerning the grandparents of the patient, but the father had always—according to report—had some difficulty in walking. The mother had always been healthy. Of seven children, one, a daughter, died in infancy, two other daughters were married and had healthy children, a third emigrated, and the three sons suffered from a disease apparently similar to that described in the father's case. At the age of eighteen or nineteen one son began to experience pains in the spinal column in the region of the hips. Gradually the gait grew worse, but his arms remained healthy throughout, and he suffered from no other symptoms. He was married twice but had no children. Investigation showed rather typical spastic paraplegia, the electrical reactions of the muscles were normal, the patellar reflexes were increased, the Achilles tendon reflex and ankle clonus were not present, Babinski's phenomenon was not present, and Strümpell's tibialis phenomenon was pronounced on both sides. The second son also commenced to notice his disease about the eighteenth year. The symptoms were similar to those of his brother. The third son noticed the symptoms earlier, in the tenth or twelfth year. Kühn also reports a fourth case with somewhat similar symptoms. The patient began to notice symptoms of his trouble about his twenty-second year. His gait gradually became impaired and finally it was necessary for him to use a cane. The arms were normal, the muscles showed resistance to passive movements, the reflexes were increased, there was ankle clonus and Babinski's phenomenon was present. The tibialis phenomenon of Strümpell was present in both legs. This patient had four brothers all of whom died in infancy, and three sisters. His father had always been healthy. Kühn, in discussing these cases, states that it is difficult to understand what part heredity plays in the development of the disease. The anatomical lesion is probably primary systematic degeneration of the lateral pyramidal tracts. The prognosis is not unfavorable to life, but it seems impossible to produce any effect upon the disease by treatment.

8. *Family and Congenital Myoclonia*.—Lundborg contributes a discussion of the relation of familial myoclonia to congenital myoclonia, giving the following interesting comparative table of the symptoms:

CONGENITAL MYOCLONIA.	DEMENTIA MYOCLONIA OR FAMILIAL MYOCLONIA.
(1) A chronic disease probably caused by some autointoxication.	(1) A chronic disease probably caused by some autointoxication.
(2) Symptoms are present at birth or appear in earliest childhood, rarely later.	(2) Symptoms occur in later childhood, but not often afterward.
(3) Usually affects several persons of the same sex and often several brothers or sisters of same family.	(3) Affects several brothers and sisters of same family and not rarely several families in same group.
(4) Myotonic reactions.	(4) Sometimes myotonic reactions.
(5) Slight psychic disturbances may occur from time to time in various forms, as weak-mindedness.	(5) Pronounced psychic disturbances occur in course of the disease and terminate with distinct dementia.

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| <p>(6) The striated muscles are affected by a tonic spasm which differs in intensity in different muscles and rarely affects those of the eye.</p> <p>(7) Alcohol has a favorable action in moderate doses. Fever also produces improvement, but cold and fatigue make the symptoms worse.</p> <p>(8) Mechanical irritation causes spasms of the muscles which gradually relax.</p> | <p>(6) The striated muscles are affected by a spasm which at first is tonic, later clonic. It varies in intensity in different muscles and the eye muscles are rarely affected.</p> <p>(7) The same.</p> <p>(8) The same.</p> |
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Lundborg believes that there are so many points of similarity in the two diseases, that the apparent intimate relation cannot be ascribed merely to accident. There is much evidence to prove that myoclonia is due to a poison generated somewhere in the system.

9. *Babinski Toe Phenomenon*.—Bickel has tested the Babinski reflex in more than 300 persons, mostly women and children, and found it positive whenever there was reason to believe in the existence of a lesion in the pyramidal tracts. It is also occasionally positive in hysteria, rarely positive in healthy adults, sometimes slightly indicated on one side. Occasionally it was positive at one investigation and negative at another. Often, however, in persons with a healthy nervous system in whom the reflex was negative while awake it became positive during deep sleep. Under these circumstances it was usually energetic and not slow as in pathological conditions. Also in cases of chloroform narcosis the reflex was found to be positive, and therefore Bickel concludes that it is an indication of functional inactivity of the cortex.

10. *Briefer Communications*.—Rosenfeld reports the case of a man twenty-eight years of age who received a severe injury in the lumbar portion of the spinal column causing immediate paralysis of the legs. Some months later on examination there was found to be increase in the reflexes in the lower extremities, the gait was impaired, there was loss of control over the sphincters, disturbance of sensation on the outer and upper sides of both feet, over the pubic and sacral regions and extending along the back of both thighs, that is, a typical saddle anesthesia. A diagnosis was made of a lesion of the conus medullaris.

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ARCHIVES DE NEUROLOGIE.

(No. 85, January, 1903.)

1. The State of the Fundus of the Eye in General Paretics and its Initial and Final Anatomical Lesions. KERAVAL and RAVIART.
2. The Evolution of Obsessions and their Passage into Delusions. SÉGLAS.
3. Motor Re-education in Diseases of the Nervous System; its Application to the Ataxia of Tabetics. CONSTENSOUX.

1. *The State of the Fundus of the Eye in General Paretics*.—The author states that it is only in the second half of the nineteenth century, that, thanks to the ophthalmoscope, neuropathologists were able to examine the fundus of the eye of general paretics. Since 1853 Lasègue, Moreau, Marcé, Dagonnet practiced this examination, but left no data concerning the alterations they observed; Bouchut, relating three cases of general paresis, notes in each the existence of papillary atrophy. The author re-